### **Commonwealth of Kentucky**

ORAFT **Natural Resources and Environmental Protection Cabinet Department for Environmental Protection** 

**Division for Air Quality** 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

### Title V AIR QUALITY PERMIT **Issued under 401 KAR 52:020**

**Permittee Name:** Trus Joist, A Weyerhaeuser Business

610 Trus Joist Lane, Chavies, Kentucky 41727 **Mailing Address:** 

**Source Name:** Trus Joist, A Weyerhaeuser Business

**Mailing Address:** Same as above

**Source Location:** 610 Trus Joist Lane

**Permit Number:** V-03-008 R2

**Log Number:** 56351

**Review Type:** Construction/Operating, TV/Synthetic Minor

**Source ID #:** 21-193-00097

**Regional Office: Hazard Regional Office** 

> 233 Birch Street, Suite 2 Hazard, KY 41701-2179

(606)-435-6025

**County: Perry** 

**Issuance Date:** July 2, 2003

**Revision Date:** 

**Expiration Date:** July 2, 2008

> John S. Lyons, Director **Division for Air Quality**

### **TABLE OF CONTENTS**

| SECTION                                                                               | DATE OF<br>ISSUANCE | PAGE |
|---------------------------------------------------------------------------------------|---------------------|------|
| A. PERMIT AUTHORIZATION                                                               | July 2, 2003        | 1    |
| B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS |                     | 2    |
| C. INSIGNIFICANT ACTIVITIES                                                           | July 2, 2003        | 25   |
| D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS                               | July 2, 2003        | 26   |
| E. SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS                                    | July 2, 2003        | 27   |
| F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS                              | July 2, 2003        | 28   |
| G. GENERAL PROVISIONS                                                                 | July 2, 2003        | 31   |
| H. ALTERNATE OPERATING SCENARIOS                                                      | July 2, 2003        | 37   |
| I. COMPLIANCE SCHEDULE                                                                | July 2, 2003        | 38   |

| Permit type              | Log # | Complete Date | Issuance | Summary of                            |
|--------------------------|-------|---------------|----------|---------------------------------------|
|                          |       | Date          | Date     | Action                                |
| Initial Issuance         | -     | -             | 4/9/97,  | C-93-111 (Revision 2), S-96-256 & S-  |
|                          |       |               | 9/10/96  | 97-033                                |
|                          |       |               | &4/7/97  |                                       |
| VS-02-009                | 55389 | 12/11/02      | 12/12/02 | Finger Joint Upgrade                  |
|                          |       |               |          |                                       |
| Operating, Title         | F916/ |               |          |                                       |
| V/Synthetic Minor        | 50711 | 02/12/98      | 07/02/03 | V-03-008                              |
| Operating, Title         |       |               |          | Compliance demonstration for E.U. 01  |
| V/Synthetic Minor,       | 56024 | 9/25/03       | 10/03/03 | - Three Wellons Wood-Fired Furnaces   |
| Revision 1               |       |               |          | revision V-03-008 R1                  |
| Construction/Operating,  |       |               |          | Replacement of (4) Strand Dryers with |
| Title V/Synthetic Minor, | 56351 |               |          | (2) New Strand Dryers (applicable to  |
| <b>Revision 2</b>        |       |               |          | 40 CFR 63 DDDD & DDDDD)               |

Permit Number: V-03-008 (Revision 2) Page: 1 of 38

#### **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and received a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Permit Number: V-03-008 (Revision 2) Page: 2 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

#### **Emission Unit 01 Three Wellons Wood-Fired Furnaces**

#### **Description:**

(MP 01) (MP 02)-Auxiliary Burner -Backup Unit

Primary Fuel: Wood Waste Primary Fuel: Propane
Rated Capacity: (3) 80 mmBtu/hr, each
Construction Commenced: 1994

Primary Fuel: Propane
Rated Capacity: 35 mmBtu/hr
Construction Commenced: 1994

Control Device: Multiclone

Electrified Filter Bed

#### **APPLICABLE REGULATIONS:**

401 KAR 59:015, New Indirect Heat Exchangers applicable to an emission unit with a capacity less than 250 mmBtu per hour and commenced on or after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units, for units less than or equal to 100 mmBtu/hour but greater than or equal to 10 mmBtu/hour commenced after June 9, 1989.

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters. The permittee must comply with the emission limitations for existing sources no later than 3 years after date the final rule is published in the federal register, or the date specified in the final rule published in the federal register.

#### 1. **Operating Limitations:**

- a. As requested by the permittee and in order to preclude the applicability of 401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD), the permittee has the following operating limits for this emission unit:
  - (1) The propane auxiliary burner shall not be operated simultaneously with the Wellons wood-fired furnace. The potential rated capacity of the emission unit is limited to 240 mmBtu/hr.
  - (2) The Electrified Filter Bed (EFB) shall be operated and routine maintenance performed to insure that the ionizer amperage does not drop below the lower limit of the indicator range developed from continuous data collected during stack tests.
  - (3) Maximum quantity of waste rags burned in the furnaces shall not exceed 1000 lbs/week.

Permit Number: V-03-008 (Revision 2) Page: 3 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 1. **Operating Limitations (Continued):**

- b. Pursuant to 40 CFR 63.7500(a)(2), the permittee has the following operating limits for this emission unit:
  - (1) The permittee shall maintain opacity to less than or equal to 20 % except for one 6-minute period per hour of not more than 27%.
  - (2) If the permittee decides to comply with the alternative total selected metals emission limit, then the permittee must maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to 40 CFR 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total metals.
  - (3) The permittee shall maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to 40 CFR 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.
- c. Pursuant to 40 CFR 63.7505 (b), the permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).
- d. Pursuant to 40 CFR 63.7505(e), if the permittee has an applicable emission limit or work practice standard, the permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3).
- e. Pursuant to 40 CFR 63.7540(c), during periods of startup, shutdown, and malfunction, the permittee must operate in accordance with the SSMP as required in 40 CFR 63.7505(e).

#### 2. <u>Emission Limitations</u>:

- a. Pursuant to 40 CFR 63.7500 (a)(1), the permittee has the following emission limits for this emission unit, except as provided under 40 CFR 63.7507:
  - (1) Emissions of particulate matter must not exceed 0.07 lb/mmBtu of heat input; or emissions of total selected metals must not exceed 0.001 lb/mmBtu of heat input. The allowable emission rate for emission of particulate matter is lower than the limit set in 40 CFR 60, Subpart Dc and 401 KAR 59:015, Section 4(1)(b).
  - (2) Emissions of hydrogen chloride must not exceed 0.09 lb/mmBtu of heat input.
  - (3) Emissions of mercury must not exceed 0.000009 lb/mmBtu of heat input.

Permit Number: V-03-008 (Revision 2) Page: 4 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. <u>Emission Limitations (Continued)</u>:

### a. Compliance Demonstration

Pursuant to 40 CFR 63.7505(c), the permittee can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Otherwise, the permittee must demonstrate compliance using performance tests.

Pursuant to 40 CFR 63.7520(b), each performance test must be conducted according to the requirements in Table 5 of 40 CFR Subpart DDDDD.

Pursuant to 40 CFR 63.7510(d), the permittee must demonstrate initial compliance no later than 180 days after the compliance date that is specified source in 40 CFR 63.7495 and according to the applicable provisions in 40 CFR 63.7(a)(2) as cited in Table 10 to 40 CFR Subpart DDDDD.

Pursuant to 40 CFR 63.7522, as an alternative to meeting the requirements of 40 CFR 63.7500, the permittee may demonstrate compliance by emission averaging according to the procedures in 40 CFR 63.7522 and 40 CFR 63.7541.

Pursuant to 40 CFR 63.7530, the permittee must demonstrate initial compliance with the emission limits and work practices in 40 CFR 63.7530. Pursuant to 40 CFR 63.7530(a), the permittee must demonstrate initial compliance with each emission limit and work practice standard that applies by either conducting initial performance tests and establishing operating limits, as applicable, according to 40 CFR 63.7520(c) and Tables 5, 7 and 8 of 40 CFR Subpart DDDDD OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to 40 CFR 63.7521(d) and Tables 6 and 8 of 40 CFR Subpart DDDD.

Pursuant to 40 CFR 63.7540(a), the permittee must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 of 40 CFR 63 Subpart DDDDD that applies, according to the methods specified in Table 8 CFR 63 Subpart DDDDD and paragraphs (a)(1) through (10) of 40 CFR 63.7540.

For compliance with the particulate matter emission limitation while burning wood, refer to Subsection 1, Operating Limitations. If five (5) percent of the EFB ionizer amperage data recorded in a calendar quarter shows excursions below the indicator range developed from continuous data collected during stack tests, the Division may require a stack test to demonstrate compliance with the particulate standard while operating at the conditions which resulted in excursions. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance tests.

Permit Number: V-03-008 (Revision 2) Page: 5 of 38

#### REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 2. <u>Emission Limitations (Continued)</u>:

a. Compliance Demonstration (Continued)

For PM lbs/mmBtu emission limit:

PM lbs/mmBtu Emission Rate =  $[(PM_{10} \text{ Hourly Emission Rate}) \times (Monthly hours of operation)] / (Monthly Fuel Usage Rate in mmBtu)]$ 

PM<sub>10</sub> Hourly Emission Rate = value correlated from stack tests and EFB amperage

Initial and continuous compliance with emission limitations in 40 CFR Subpart DDDDD will also be demonstrated by site-specific operating limits and the Notification of Compliance Status report containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e).

- b. Pursuant to 40 CFR 63.7505 (a), the permittee must be in compliance with the emission limitations (including operating limits) and the work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction.
- c. Pursuant to 401 KAR 59:015, Section 4(2), and 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, visible emissions shall not exceed 20% opacity based on a six minute average, except for one six minute period per hour of not more than 27% opacity.

Compliance with the opacity limit shall be demonstrated by using EPA reference method 9. Alternatively, the permittee may use a continuous opacity monitor (COM) in determining compliance with opacity.

- d. To preclude the applicability of 401 KAR 51:017,  $SO_2$  emissions shall not exceed 0.12 lbs/mmBtu actual heat input for each unit based on a three-hour average. The allowable emission rate is lower than the limit set in 401 KAR 59:015, Section 5.
  - Compliance is assumed based on AP-42, Table 1.6-2 emission factor of 0.025 lb  $SO_2$ /mmBtu, while burning bark and/or wood.
- e. Nitrogen oxide emissions shall not exceed 0.23 lb/mmBtu actual heat input for each unit based on a three-hour average, so as to preclude the applicability of PSD.

Compliance is assumed based on AP-42, Table 1.6-2 emission factor of 0.22 lb NO<sub>x</sub>/mmBtu, while burning bark and/or wood.

- f. Emission Limitations for Propane Burner only:
  - (1) To preclude the applicability of 401 KAR 51:017 the particulate emissions shall not exceed 0.01 lb/mmBtu actual heat input. The allowable emission rate is lower than the limit set in 401 KAR 59:015, Section 4(1)(b).

Permit Number: V-03-008 (Revision 2) Page: 6 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 2. <u>Emission Limitations (Continued)</u>:

- f. Emission Limitations for Propane Burner only (continued):
  - (2) Pursuant to 401 KAR 59:015, Section 4(2), and 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, visible emissions shall not exceed 20% opacity based on a six minute average, except for one six minute period per hour of not more than 27% opacity.
  - (3) Pursuant to 401 KAR 59:015, Section 5, SO<sub>2</sub> emissions shall not exceed 0.80 lb/mmBtu actual heat input from the unit based on a three-hour average.

#### Compliance Demonstration

The unit is considered to be in compliance with the PM, SO<sub>2</sub>, and opacity standards while burning propane.

#### 3. <u>Testing Requirements</u>:

- a. Pursuant to 40 CFR 63.7510(a), if the permittee elects to demonstrate compliance with any of the emission limits of 40 CFR Subpart DDDDD through performance testing, the initial compliance requirements include conducting performance tests according to 40 CFR 63.7520 and Table 5 to 40 CFR Subpart DDDDD, conducting a fuel analysis for each type of fuel burned in the boiler or process heater according to 40 CFR 63.7521 and Table 6 to 40 CFR Subpart DDDDD, establishing operating limits according to 40 CFR 63.7530 and Table 7 to 40 CFR Subpart DDDDD, and conducting continuous monitoring system (CMS) performance evaluations according to 40 CFR 63.7525.
- b. Pursuant to 40 CFR 63.7510(b), if the permittee elects to demonstrate compliance with the emission limits for hydrogen chloride (HCl), mercury, or total selected metals (TSM) through fuel analysis, the initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in the boiler or process heater according to 40 CFR 63.7521 and Table 6 to 40 CFR Subpart DDDDD and establish operating limits according to 40 CFR 63.7530 and Table 8 to 40 CFR Subpart DDDDD.
- c. Pursuant to 40 CFR 63.7515(a), the permittee must conduct all applicable performance tests according to 40 CFR 63.7520 on an annual basis unless the permittee follows the requirements listed in paragraphs (b) through (d) of 40 CFR 63.7515.
- d. Pursuant to 40 CFR 63.7515(f), the permittee must conduct a fuel analysis according to 40 CFR 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If the permittee burns a new type of fuel, the permittee must conduct a fuel analysis before burning the new type of fuel in the process heater. The permittee must still meet all applicable continuous compliance requirements in 40 CFR 63.7540.

Permit Number: V-03-008 (Revision 2) Page: 7 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 3. <u>Testing Requirements (Continued)</u>:

- e. Pursuant to 40 CFR 63.7520, the permittee shall comply with the following performance tests, design evaluations, and other procedures:
  - (1) The permittee shall conduct all performance tests according to 40 CFR 63.7 (c), (d), (f), and (h). The permittee shall also develop a site-specific test plan according to the requirements in 63.7(c), if the permittee elects to demonstrate compliance through performance testing.
  - (2) The permittee must conduct each performance test according to the requirements in Table 5 of 40 CFR Subpart DDDDD.
  - (3) The permittee must conduct each performance test under the specific conditions listed in Tables 5 and 7 in 40 CFR Subpart DDDDD. The permittee must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and must demonstrate initial compliance and establish the operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.
  - (4) The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction.
  - (5) The permittee shall conduct three separate test runs for each performance test required in 40 CFR 63.7520, as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour.
  - (6) To determine compliance with the emission limits, refer to 40 CFR 63.7520(g).
- f. Pursuant to 40 CFR 63.7521, the permittee must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of 40 CFR 63.7521 and Table 6 to 40 CFR Subpart DDDDD, as applicable.
- g. The permittee shall conduct at least one performance test for particulates within six months following the issuance of permit V-03-008. The indicator range shall be developed from the EFB data collected during the stack tests.
- h. If no additional stack tests are performed pursuant to Condition 2.a above, the permitee shall conduct one performance test for particulate emissions within the third year of the term of this permit to determine compliance with the allowable standard.

Permit Number: V-03-008 (Revision 2) Page: 8 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 4. Specific Monitoring Requirements:

- a. Pursuant to 40 CFR 63.7505(d), if the permittee demonstrates compliance with any applicable emission limit through performance testing, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of 40 CFR 63.7505.
- b. Pursuant to 40 CFR 63.7525(b), each COM must be installed, operated, certified and maintained according to the procedures in paragraphs (b)(1) through (7) of 40 CFR 63.7525(b) by the compliance date specified in 40 CFR 63.7495.
- c. Pursuant to 40 CFR 63.7535, the permittee must monitor and collect data according to 40 CFR 63.7535 and the site specific monitoring plan required by 40 CFR 63.7505(d) to demonstrate continuous compliance.
- d. The permittee shall monitor the wood fuel usage on a daily basis.
- e. Pursuant to 401 KAR 52:020, and 40 CFR 60, Subpart Dc, to meet the periodic monitoring requirement for opacity, the permittee shall use a COM.
- f. Pursuant to 401 KAR 59:005, Section 3, a continuous monitoring system for opacity shall conform to requirements of this section, which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement, and demonstrate compliance with Performance Specification 1 of 40 CFR 60, Appendix B, as requested by the Division for Air Quality.
- g. Pursuant to 401 KAR 59:005, Section 3 (5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 59:005, Section 3, for the continuous monitoring systems during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

### 5. **Specific Recordkeeping Requirements:**

- a. The permittee shall record and maintain records of the amount of wood fuel combusted by the furnace and propane combusted by the propane burner on a daily basis, in accordance with 40 CFR 60, Subpart Dc.
- b. The permittee shall maintain records of the COM data and the number of excursions above 20%, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing above 20% in each calendar quarter.
- c. The permittee shall continuously record voltages, amperages, and pressure drops for the dry EFB.

Permit Number: V-03-008 (Revision 2) Page: 9 of 38

### REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 5. Specific Recordkeeping Requirements (Continued):

d. The permittee shall record excursions beyond the acceptable ranges.

e. The permittee shall maintain each record for compliance with 40 CFR 63 Subpart DDDDD in accordance with 40 CFR 63.7555 and 40 CFR 63.7560. The permittee shall maintain these records in a form readily available for expeditious review, according to 40 CFR 63.10 (b)(1). Each record shall be maintained for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

#### 6. **Specific Reporting Requirements:**

- a. Pursuant to 40 CFR 63.7515(g), the permittee must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for the affected source have not changed or provide documentation of revised operating parameters established according to 40 CFR 63.7530 and Table 7 to 40 CFR Subpart DDDDD, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in 40 CFR 63.7550.
- b. Pursuant to 40 CFR 63.7540(b), the permittee must report each instance in which the permittee did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 of 40 CFR 63 Subpart DDDDD that apply. The permittee must also report each instance during a startup, shutdown, or malfunction when the permittee did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in 40 CFR 63 Subpart DDDDD. These deviations must be reported according to the requirements in 40 CFR 63.7550.
- c. Pursuant to 40 CFR 63.7545 and 63.7550, the permittee must submit all notification and reports required by 40 CFR 63 Subpart DDDDD by the date specified in 40 CFR 63.7545 and 63.7550.
- d. The permittee shall report the number of excursions above or below the required indicator range, date and time of excursions, amperage value of the excursions, and percentage of the data showing excursions from the indicator range in each calendar quarter.
- e. See Section F

Permit Number: V-03-008 (Revision 2) Page: 10 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the Electrified Filter Bed shall be maintained and operated in accordance with manufacturer's specifications and/or standard operating practices
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for further requirements.

Permit Number: V-03-008 (Revision 2) Page: 11 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Units 02: Two Strand Dryers** 

#### **Description:**

Maximum Strand Production: 35 tons/hr, total Construction Commenced: Proposed 2004

Control Device: Multicyclone and Electrified Filter Bed

Control Device for 40 CFR Subpart DDDD Hazardous Air Pollutants (HAPs): none

(2) Suspension Burners: 100 mmBtu/hr total, combustion of wood dust and pulverized wood Main Source of Heat: Direct emission from Emission Unit 01, Three Wellons Wood-Fired

Furnaces

#### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New process operations, applicable to an emission unit commenced on or after July 2, 1975.

40 CFR 63 Subpart DDDD, National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. The permittee must comply with the compliance options, operating requirements, and work practice requirements for existing sources no later than the date 38 months after date of publication of the final rule in the federal register. The permittee may evaluate if the affected source can be de-listed from the 40 CFR Subpart DDDD applicability through the risk-base option expected in the final rule.

#### 1. **Operating Limitations:**

- a. Pursuant to 40 CFR 63.2240(a), the permittee shall:
  - i) maintain on a daily basis, the average inlet temperature below the maximum inlet temperature established during the performance test according to 40 CFR 63.2262(n); or
  - ii) maintain the 3-hour block average total hydrocarbon (THC) concentration in the process unit exhaust below the maximum concentration established during the performance test; or
  - iii) comply with a risk-based alternative, as specified in the final published standard in 40 CFR 63 Subpart DDDD.
- b. Pursuant to 40 CFR 63.2241(a), the permittee must use non-HAP coatings as defined in 40 CFR 63.2292.
- c. Pursuant to 40 CFR 63.2250(b), the permittee must always operate and maintain the affected source, including monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>12</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 1. Operating Limitations (Continued):

d. Pursuant to 40 CFR 63.2250(c), the permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3).

#### 2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(1)(b), visible emissions shall not equal or exceed 20% opacity.

#### Compliance Demonstration Method

In determining compliance with the opacity standard as listed above, refer to Subsection 3, Testing Requirements.

b. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from Emission Unit 02 shall not exceed [17.31(P)<sup>0.16</sup>] lbs/hour, where P is the processing rate in tons/hour.

#### Compliance Demonstration Method

Refer to Subsection 2, Operating Limitations and Subsection 4, Specific Control Equipment Operating Conditions for compliance with PM limits.

PM emissions will be based on the following post-control emission factor, based on the controls utilized (EFB): 0.411 lb PM/ton of dry product produced.

c. Pursuant to 40 CFR 63.2240(a), the permittee shall comply with either the HAP Production-Based Compliance Option of 0.18 pounds of 40 CFR 63 Subpart DDDD HAPs per oven dried ton for rotary strand dryers, an approved alternative emission limit based on risk analysis, or other federally enforceable emission limit published in 40 CFR 63 Subpart DDDD. The HAPs in 40 CFR 63 Subpart DDDD include acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde.

#### Compliance Demonstration Method

Pursuant to 40 CFR 63.2260(a), to demonstrate initial compliance with the compliance options and operating requirements, the permittee must conduct performance tests and establish each site-specific operating requirement in Table 2 of 40 CFR 63 Subpart DDDD according to the requirements in 40 CFR 63.2262 and Table 4 of 40 CFR 63 Subpart DDDD.

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>13</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. Emission Limitations:

c. Compliance Demonstration Method (Continued)

Pursuant to 40 CFR 63.2260(b), the permittee must demonstrate initial compliance with each compliance option, operating requirement, and work practice requirement that applies to the permittee according to Table 5 and 6 of 40 CFR 63 Subpart DDDD and according to 40 CFR 63.2260 through 63.2269 of 40 CFR 63 Subpart DDDD.

Pursuant to 40 CFR 63.2270, the permittee must demonstrate continuous compliance by the monitoring and data collection methods in 40 CFR 63.2270.

Refer to Subsection 4.0, Specific Monitoring Requirements, for demonstration of continuous compliance.

Refer to Subsection 6.0, Specific Reporting Requirements for notification requirements.

d. Pursuant to 40 CFR 63.2250(a), the permittee must be in compliance with the selected compliance option, operating requirements, and the work practice requirements in 40 CFR 63 Subpart DDDD at all times, except during periods of process unit startup, shutdown, and malfunction; and prior to initial startup.

#### 3. Testing Requirements:

a. The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 monthly, or more frequently if requested by the Division.

After proposed modifications are made and a COM is used to monitor the opacity from the stack, the permittee may use a COM in determining compliance with opacity, as an alternative to EPA reference method 9.

- b. Pursuant to 40 CFR 63.2261(a), the permittee must conduct performance tests upon initial startup or no later than 180 calendar days after the compliance date that is specified for the source in 40 CFR 63.2233 and according to 40 CFR 63.7(a)(2), whichever is later.
- c. Pursuant to 40 CFR 63.2261(b), the permittee must conduct initial compliance demonstrations that do not require performance tests upon initial startup or no later than 30 calendar days after the compliance date that is specified for the source in 40 CFR 63.2233, whichever is later.
- d. Pursuant to 40 CFR 63.2262(a), the permittee must conduct each performance test according to the requirements in 40 CFR 63.7(e)(1), the requirements in paragraphs (b) through (o) of 40 CFR 63.2262, and according to the methods specified in Table 4 of 40 CFR 63 Subpart DDDD.

Permit Number: V-03-008 (Revision 2) Page: 14 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 4. **Specific Monitoring Requirements:**

- a. The permittee shall monitor maximum usage rate, production and throughput of methylene biphenyl isocyanate (MDI), strand, billet, and lumber on a weekly basis.
- b. The permittee shall follow the monitoring installation, operation, and maintenance requirement in 40 CFR 63.2269, as necessary, to comply with 40 CFR 63 Subpart DDDD.
- c. Pursuant to 40 CFR 63.2271(a) and 40 CFR 63 Subpart DDDD Table 7, the permittee must collect and record the operating parameter monitoring system data listed in Table 2 of 40 CFR 63 Subpart DDDD for the process unit according to 40 CFR 63.2269(a)-(b) and 40 CFR 63.2270; AND reduce the operating parameter monitoring system data to the specified average in units of the applicable requirement according to calculations in 40 CFR 63.2270; AND the permittee shall maintain the average inlet temperature below the maximum inlet temperature established during the performance test according to 40 CFR 63.2262.

### 5. Specific Recordkeeping Requirements:

- a. Records of the amount of MDI, strand, billet, and lumber shall be maintained.
- b. The permittee shall maintain records specified in 40 CFR 63.228 for the time duration specified in 40 CFR 63.2283.

#### **6.** Specific Reporting Requirements:

- a. Pursuant to 40 CFR 63.2280(a), the permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified.
- b. Pursuant to 40 CFR 63.2280(b), the permittee must submit an Initial Notification no later than 120 calendar days after the effective date of 40 CFR Subpart DDDD or after initial startup, whichever is later, as specified in 40 CFR 63.9(b)(2) and (3).
- c. Pursuant to 40 CFR 63.2280(c), the permittee must submit a written notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as specified in 40 CFR 63.7(b)(1).
- d. Pursuant to 40 CFR 63.2260(c) and 40 CFR 63.2280(d), the permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration as specified in 40 CFR 63.9(h)(2)(ii).
- e. Pursuant to 40 CFR 63.2280(g), the permittee must notify the Division within 30 days before changing a continuous monitoring parameter or the value or range of values of a continuous monitoring parameter for any process unit.

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>15</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 6. **Specific Reporting Requirements (Continued):**

- f. The permittee shall submit all reports specified in 40 CFR 63.2281 by the date specified in 40 CFR 63.2281.
- g. See Section F.

#### 7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the EFB shall be operated as necessary to maintain compliance with the permitted emission limitations, in accordance with the manufacturer's specifications and/or good engineering practices.
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained
- c. See Section E for further requirements.

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>16</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units 03, 05, 06, 07, 08, 10, and 11: Process Equipment

**Description - Emission Units 03:** Siempelkamp Steam Injection Press

Maximum Billet Production: 38.4 tons/hr, and 336,384 tons/yr

Construction Commenced: 1994

**Description - Emission Units 05:** Saw System #1: saw line, end edge, trim reject woodhogs &

edge trim saw

Maximum Lumber Production: 69 tons/hr, and 604,440 tons/yr

Construction Commenced: 1994

Control Device: Baghouse #4: 99.7 Cyclone #4: 80%

**Description - Emission Units 06:** Finish Saw System #2: dimensioning saw line

Maximum Lumber Production: 69 tons/hr, and 604,440 tons/yr

Construction Commenced: 1994

Control Device: Baghouse#5: 99.7 Cyclone #5: 80%

Description - Emission Units 07: Steineman Billet Sander

Maximum Lumber Production: 69 tons/hr, and 604,440 tons/yr

Construction Commenced: 1994

Control Device: Baghouse#6: 99.7 Cyclone #6: 80%

**Description - Emission Units 08:** Two Stranding Operating: Pallman stranders, conveyers, &

transfer point.

Maximum Strand Production: 66 tons/hr, and 578,160 tons/yr

Construction Commenced: 1994

Control Device: Baghouse#1: 99.7 Cyclones: 80%

**Description - Emission Units 10:** Siempelkamp Forming: blenders, mat, formers, & flying saw

Maximum Production 38.4 tons/hr, and 336,384 tons/yr Maximum MDI usage rate: 3,000 lb/hr, and 13,140 tons/yr

Construction Commenced: 1994

Control Device: (2) Baghouse #2 & #3: 99.7 fixed

Permit Number: V-03-008 (Revision 2) Page: 17 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units 03, 05, 06, 07, 08, 10, and 11: Process Equipment (Continued)

### **Description - Emission Units 11** Wood Dust Pneumatic Conveying

Maximum throughput: 1.14 tons/hr, and 9,982 tons/yr

Construction Commenced: 1994

Control Device: Baghouse #1: 99.7 Cyclone: 80%

#### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New process operations, applicable to an emission unit commenced on or after July 2, 1975.

#### 1. **Operating Limitations:**

To preclude the applicability of 401 KAR 51:017, the maximum usage and production rate of materials shall not exceed the rates described under the description for each emission unit. Control devices described under the description for the emission units shall be operated in accordance with the manufacturer's specifications and/or good engineering practices.

### 2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:010, Section 3(1)(b), visible emissions shall not equal or exceed 20% opacity.

#### Compliance Demonstration Method

In determining compliance with the opacity standard as listed above, refer to Subsection 3, Testing Requirements.

b. To preclude the applicability of 401 KAR 51:017, PM emissions shall not exceed the limits in the following table. The allowable emission rate is lower than the limit set in 401 KAR 59:010, Section 3(2). Particulate emissions shall not exceed:

| Emission Unit # | PM emissions (lb/hr) | PM emissions (ton/yr) |
|-----------------|----------------------|-----------------------|
| 3               | 1.2                  | 5.26                  |
| 5               | 2.2                  | 9.4                   |
| 6               | 2.2                  | 9.4                   |
| 7               | 2.2                  | 9.4                   |
| 8               | 2.62                 | 11.5                  |
| 10              | 3.30                 | 14.4                  |

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>18</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 2. <u>Emission Limitations (Continued)</u>:

#### b. Particulate emissions (Continued)

Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air from Emission Unit 11 shall not exceed [3.59(P)<sup>0.62</sup>] lbs/hour, where P is the processing rate in tons/hour.

#### Compliance Demonstration Method

Refer to Subsection 2, Operating Limitations and Subsection 4, Specific Control Equipment Operating Conditions for compliance with PM limits.

PM emissions will be based on the following control efficiencies and emission factors, based on the controls utilized under each emission unit description above:

| Emission Unit # | Control Efficiency % | PM emission factor (lb/ton) |
|-----------------|----------------------|-----------------------------|
| 3               | 0.0                  | 0.03125                     |
| 5               | 99.7                 | 14.36                       |
| 6               | 99.7                 | 14.29                       |
| 7               | 99.7                 | 14.29                       |
| 8               | 99.7                 | 36.697                      |
| 10              | 99.7                 | 85.937                      |
| 11              | 99.7                 | 121.1                       |

#### 3. <u>Testing Requirements</u>:

The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division.

#### 4. Specific Monitoring Requirements:

The permittee shall monitor maximum usage rate, production and throughput of MDI, strand, billet, and lumber on a weekly basis.

#### 5. Specific Recordkeeping Requirements:

Records of the amount of MDI, strand, billet, and lumber shall be maintained.

#### **6.** Specific Reporting Requirements:

See Section F.

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>19</u> **of** <u>38</u>

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the baghouses shall be operated as necessary to maintain compliance with the permitted emission limitations, in accordance with the manufacturers' specifications and/or good engineering practices.
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for further requirements.

Permit Number: V-03-008 (Revision 2) Page: 20 of 38

### SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Description - Emission Units 09: Stranding Area Woodhog FUGITIVES

Construction Commenced: 1994

**Emission Units 15: Green Woodhog** 

Construction Commenced: 1994

**Emission Units 16:** Log preparation: debarker, slasher deck, and 4 saws

Construction Commenced: 1994

**Emission Units 17: Green Fuel Storage Bin** 

Construction Commenced: 1994

**Emission Units 18: Dry Fuel Storage Bin** 

Construction Commenced: 1994

**Emission Units 19: Wood Chipper** 

Construction Commenced: 1994

**Emission Units 20: Wood Tub Grinder** 

Construction Commenced: 1994

**Emission Units 25: Unpaved Roadway** 

Construction Commenced: 1994

#### **Applicable Regulations:**

401 KAR 63:010, Fugitive Emissions

#### 1. **Operating Limitations:**

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but are not limited to the following:
  - 1 Application and maintenance of suitable chemicals or water on roads, material stockpiles, and other surfaces which can create airborne dust; and
  - 2. Installation and use of other measures to suppress the dust emissions during handling.
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

Permit Number: V-03-008 (Revision 2) Page: 21 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. <u>Emission Limitations:</u>

None

#### 3. Testing Requirements:

None

#### 4. Specific Monitoring Requirements:

The permittee shall monitor fugitive emissions weekly from each emission point. Usage of enclosures demonstrates compliance with the requirements of 401 KAR 63:010.

#### 5. **Specific Record Keeping Requirements:**

The permittee shall maintain a log of the date, time, and results of the monitoring required in Subsection 4 above.

#### **Specific Reporting Requirements:**

See Section F, Conditions 5, 6, 7 and 8.

#### 7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the partial enclosures shall be maintained and operated to ensure the emission units are in compliance with applicable requirements of 401 KAR 63:010 and in accordance with manufacturer's specifications and/or standard operating practices
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for further requirements.

Permit Number: V-03-008 (Revision 2) Page: 22 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **Emission Units 21** Flange Preparation and Finger Joint Line

Maximum Flange Production: 18.3 tons/hr Maximum Adhesive Usage rate: 15.6 lb/hr Construction Commenced: 1994

Control Device: Baghouse #7: 99.7

#### Emission Units 22 Web Preparation, TSI Machining, Spray Booth, I-line Oven

Maximum Web Production: 15.6 tons/hr Maximum Adhesive Usage Rate: 250 lb/hr Construction Commenced: 1994

Control Device: Baghouse#8: 99.7

#### Unit 22 (MP02) Fungicide Usage

Maximum Usage rate: 8.79 lb/hr, or 38.5 tons/yr

Construction Commenced: 1994

#### **Emission Units 23** High Pressure Relay

Maximum Production: None Construction Commenced: 1994

Control Device: Baghouse #9: 99.7

#### **Emission Units 24** Propane Heating

Maximum Heat Input: 2.8 mmBtu/hr

Construction Commenced: 1994

#### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New Process Operations, applicable to an emission unit commenced on or after July 2, 1975.

401 KAR 63:021, Existing sources emitting toxic air pollutants.

401 KAR 63:020, Potentially hazardous matter or toxic substances.

#### 1. Operating Limitations:

The usage rate of glue shall not exceed the limitations described in Section B above.

Permit Number: V-03-008 (Revision 2) Page: 23 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:010, Section 3(1)(b), visible emissions shall not equal or exceed 20% opacity.

#### Compliance Demonstration Method

In determining compliance with the opacity standard as listed above, refer to Subsection 3, Testing Requirements.

#### b. Particulate emissions shall not exceed:

| Emission Unit # | PM emissions (lb/hr)<br>401 KAR 59:010,<br>Section 3(2) | PM emissions (ton/yr)<br>State-only Requirement<br>from permit S-97-033 |
|-----------------|---------------------------------------------------------|-------------------------------------------------------------------------|
| 21              | 1.97                                                    | 8.6                                                                     |
| 22              | 2.2                                                     | 9.5                                                                     |
| 23              | 0.36                                                    | 1.59                                                                    |

#### Compliance Demonstration Method

PM emissions will be based on the following control efficiencies and emission factors, based on the controls utilized under each emission unit description above:

| Emission Unit # | Control Efficiency % | PM emission factor (lb/ton) |
|-----------------|----------------------|-----------------------------|
| 21              | 99.7                 | 10.77                       |
| 22              | 99.7                 | 13.80                       |
| 23              | 99.7                 | 0.204                       |

c. Throughput and usage rate for adhesives and fungicides shall not exceed limitations in Section B above, to demonstrate compliance with 401 KAR 63:021.

#### 2. <u>Testing Requirements:</u>

The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division.

#### 4. Specific Monitoring Requirements:

The permittee shall monitor maximum usage rates, production and throughputs of adhesive, fungicides, and sealers, on weekly basis.

#### 5. Specific Recordkeeping Requirements:

The permittee shall record maximum usage rates, production and throughputs of adhesive, fungicides, and sealers, on weekly basis.

Permit Number: V-03-008 (Revision 2) Page: 24 of 38

# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 6. **Specific Reporting Requirements:**

See Section F, Conditions 5, 6, 7 and 8.

### 7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-03-008 (Revision 2) Page: 25 of 38

### **SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

|     | <u>Description</u>                         | Generally Applicable Regulation |
|-----|--------------------------------------------|---------------------------------|
| 1.  | Emergency Generator (Diesel)               | NA                              |
| 2.  | Emergency Fire Pump (Diesel)               | NA                              |
| 3.  | 18- Roof Ventilation                       | NA                              |
| 4.  | 4-Dryer Wall Exhaust                       | NA                              |
| 5.  | Emergency High Pressure Wood Dust Conve    | eying NA                        |
| 6.  | Diesel Tank (10,000 gallons)               | NA                              |
| 7.  | Thermal Oil Tank (10,000 gallons)          | NA                              |
| 8.  | 2-MDI Resin Tanks (14,000 gallons)         | NA                              |
| 9.  | Emulsified Wax (14,000 gallons)            | NA                              |
| 10. | 2-TimberStrand? and TJI Propane Tanks      | NA                              |
|     | (30, 000 gallons each, pressurized)        |                                 |
| 11. | Fingerjoint Adhesive/Clamping              | NA                              |
| 12. | TimberStrand? LSL/TJI Logo inkjet Printer  | -Stamp NA                       |
| 13. | TJI Adhesive/Storage Tanks                 | NA                              |
| 14. | Wood Fuel Storage (bark, strands, and wood | l chips) NA                     |
| 15. | Paved Roadway                              | NA                              |
| 16. | Wet Wood Fuel Bin                          | NA                              |
| 17. | Strand/Mat Reject Bins                     | NA                              |
| 18. | Truck Wood collection Bin                  | NA                              |
| 19. | Evaporation tank                           | NA                              |
| 20. | Edge Seal Application                      | NA                              |
| 21. | End seal Application                       | NA                              |

Permit Number: V-03-008 (Revision 2) Page: 26 of 38

# SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 2. Nitrogen oxides, Sulfur dioxides and Particulate matter emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
- 3. As a self imposed restriction to preclude the applicability of 401 KAR 51:017, emission of carbon monoxide (CO), particulate matter (PM), particulate matter less than 10 microns (PM $_{10}$ ), and nitrogen oxides (NO $_{x}$ ) emissions from all non-fugitive sources shall not exceed 225 tons each, during any consecutive twelve (12) month rolling total.

#### Compliance Demonstration Method

The permittee shall maintain records of the monthly CO, PM,  $PM_{10}$ , and NOx emissions from all non-fugitive sources, and summarize them on a 12-month rolling average.

4. Pursuant to 401 KAR 63:021, source-wide emissions of methylene biphenyl isocyanate (MDI) shall not exceed 1.45 lb/hr.

#### Compliance Demonstration Method

Emissions of MDI will be controlled by the particulate matter controls as stated for each emission unit in Section B. Controls shall be operated as necessary to maintain compliance with the permitted emission limitation, in accordance with the manufacturer's specifications and/or good engineering practices.

Permit Number: V-03-008 (Revision 2) Page: 27 of 38

### **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Permit Number: V-03-008 (Revision 2) Page: 28 of 38

# SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26], unless otherwise stated in Section B of the permit.
- 3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit:
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

Permit Number: V-03-008 (Revision 2) Page: 29 of 38

# SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- 6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition:
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

Permit Number: V-03-008 (Revision 2) Page: 30 of 38

# SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality Hazard Regional Office 233 Birch Street, Suite 2 Hazard, KY 41701-2179 U.S. EPA Region IV Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960

Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
- 11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

**Permit Number:** <u>V-03-008 (Revision 2)</u> **Page:** <u>31</u> **of** <u>38</u>

#### **SECTION G - GENERAL PROVISIONS**

### (a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

- 2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- 4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

Permit Number: V-03-008 (Revision 2) Page: 32 of 38

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

- 7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- 11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
- 13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- 14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
- 15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

Permit Number: V-03-008 (Revision 2) Page: 33 of 38

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:

- (a) Applicable requirements that are included and specifically identified in the permit and
- (b) Non-applicable requirements expressly identified in this permit.

#### (b) Permit Expiration and Reapplication Requirements

- 1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- 2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:02+0 Section 8(2)].

#### (c) <u>Permit Revisions</u>

- 1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- 2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

### (d) <u>Construction, Start-Up, and Initial Compliance Demonstration Requirements</u>

Emission Unit 02 will be replaced with two new proposed strand dryers. In addition, emissions from Emission Unit 01 can be directed to pass through the two new proposed strand dryers, prior to the EFB.

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, Emission Unit 02 in accordance with the terms and conditions of this permit.

Permit Number: V-03-008 (Revision 2) Page: 34 of 38

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

- 2. Unless otherwise stated in Section B of the permit, within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the affected facilities listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.
- 3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- 4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test
- 6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

Permit Number: V-03-008 (Revision 2) Page: 35 of 38

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

7. Unless otherwise stated in Section B of the permit, pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

- 8. Unless otherwise stated in Section B of the permit, pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.
- (e) <u>Acid Rain Program Requirements</u>

NA

- (f) <u>Emergency Provisions</u>
- 1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit;
     and
  - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
  - e. This requirement does not relieve the source of other local, state or federal notification requirements.
- 2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- 3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

Permit Number: V-03-008 (Revision 2) Page: 36 of 38

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

### (g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 3346 Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

#### (h) Ozone depleting substances

- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

Permit Number: V-03-008 (Revision 2) Page: 37 of 38

### **SECTION H - ALTERNATE OPERATING SCENARIOS**

NA

Permit Number: V-03-008 (Revision 2) Page: 38 of 38

### **SECTION I - COMPLIANCE SCHEDULE**

NA